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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/543,235	04/05/2000	John C. Krumm	MCS-008-00	6912

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EXAMINER

LAU, TUNG S

ART UNIT	PAPER NUMBER
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2863

DATE MAILED: 05/03/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/543,235

Applicant(s)

KRUMM, JOHN C.

Examiner

Tung S Lau

Art Unit

2863

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 March 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

a. Claims 1, 2, 4, 6, 12, 13, 14, 15, 16, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sengupta et al. (U.S. Patent 6,359,647) in view of Burkhardt et al. (U.S. Patent 4,631,598)

Sengupta discloses a method of determining relative position and orientation of base and non-base camera, measuring a path of an object in coordinate frame (fig. 1, 6a, 6b, col. 4, lines 26-45, col. 9, lines 14-45), calculating transformation parameters based on object path (fig. 6a-6b), applying the transformation parameters from measurement (fig. 6a, fig. 1, block 140, 144, 142), generate a path of an object from cameras (fig. 5a-5c), a path of a moving person around the scene (fig. 5a-5c), use of interpolation (col. 9, lines 29-36).

Sengupta discloses does not disclose data overlapping and time offset value for the transformation, Burkhardt disclose such approach (col. 2-3, lines 55-15) to work in a high speed and variable resolution digital system (col. 1, lines 54-64)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Sengupta to have the data overlapping and time offset value for the transformation taught by Burkhardt in order to work in a high speed and variable resolution digital system.

b. Claims 3, 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Sengupta as applied to claims above, and further in view of Takayama et al. (U.S. Patent 6,138,196)

The Sengupta combination disclose a method including the subject matter discussed above except performing data matching point, Takayama disclose such approach (col. 10, lines 34-43), to use in a various type of digital interface system (col. 2, lines 1-9).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Sengupta to perform data matching point taught by Takayama in order to use in a various type of digital interface system.

c. Claims 7, 8, 9, 17, 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Sengupta as applied to claims above, and further in view of Thompson et al. (U.S. Patent 5,764,516)

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The Sengupta combination disclose a method including the subject matter discussed above except least squares solution and least median of squares solution error minimization technique, Thompson disclose such usage (col.2, lines 47-60, col. 48-55), for phase correction on a multiple frequency bands system (col. 4, lines 13-21).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Sengupta to use least squares solution and least median of squares solution error minimization technique taught by Thompson in order to use phase correction on a multiple frequency bands system.

d. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Sengupta as applied to claims above, and further in view of Grumet et al. (U.S. Patent 4,490,849)

The Sengupta combination disclose a method including the subject matter discussed above except correction of unsynchronized data between cameras, Grumet disclose such approach (col.12, lines 16-30) for an optical matched image correlation system (col. 2, lines 6-10).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Sengupta to use correction of unsynchronized data between cameras taught by Grumet in order to have an optical matched image correlation system.

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2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung S Lau whose telephone number is 703-305-3309. The examiner can normally be reached on M-F 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John S Hilten can be reached on 703-308-0719. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-5841 for regular communications and 703-308-5841 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

TL



JOHN S. HILTEN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800